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Bosscher et al.

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(54) **PROTECTIVE ENCLOSURE FOR AN ELECTRONIC DEVICE**

(56) **References Cited**

U.S. PATENT DOCUMENTS

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6,981,085	B2	12/2005	Tree et al.	
8,286,789	B2	10/2012	Wilson et al.	
2007/0215663	A1	9/2007	Chongson et al.	
2010/0124040	A1*	5/2010	Diebel	G06F 1/1628 361/816
2013/0069499	A1	3/2013	Modrell	
2017/0047960	A1*	2/2017	Kil	H04B 1/3888
2017/0338846	A1*	11/2017	Lee	G06F 3/048
2017/0353208	A1*	12/2017	Wilson	H04M 1/18

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* cited by examiner

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(58) **Field of Classification Search**
CPC **A45C 11/00**; **A45C 2011/002**; **A45C 2011/003**

See application file for complete search history.

(57) **ABSTRACT**

An accessory device used with an electronic device is disclosed. The accessory device may provide a protective cover for the electronic device. The accessory device may include a first part and a second part. The accessory device may also include one or more detection mechanisms, some of which may be used to determine whether the first part and the second part are properly aligned with respect to each other. Further, the detection mechanisms may generate an indication whether the first and second parts are properly aligned. The detection mechanism may be in communication with the electronic device such that the electronic device can receive the indication. In this manner, the indication may cause the electronic device to generate and present a message on a display of the electronic device. The message may provide a statement whether the parts are properly aligned.

19 Claims, 8 Drawing Sheets

